



Forest Health Protection Pacific Southwest Region



Date: August 19, 2016

File Code: 3400

To: Nolan Colegrove, District Ranger, Ukonom Ranger District

Subject: Biological evaluation following WKRP site visit

At the request of Roberto Beltran, Six Rivers Silviculture, a site visit was made to the Ti Bar, Patterson, and Donahue Plantations (named for the adjacent neighborhoods of Donahue Flat, Ti Bar, Patterson and Rogers Creek) in the Western Klamath Restoration Partnership (WKRP) project area July 13, 2016. It is expected that a proposal to treat approximately 200-300 acres of approximately 40-50 year old plantations will be added to the FY2018 Forest Capability Report. The objectives were to assess the current stand conditions for insect and disease activity and discuss suitability for WBBF funding. Roberto Beltran, Carolyn Cook, Kristen Lark (Six Rivers NF), and Cynthia Snyder (FHP) were present.

Background

The WKRP is a collaborative fire management project in the Western Klamath landscape shared by the Karuk Tribe, the Mid-Klamath Watershed Council, the US Forest Service, area Fire Safe Councils, environmental groups and other community-based stakeholders. Working extensively in identifying and prioritizing restoration goals and project areas to create fire safe communities, restore fire adapted ecosystems, and improve cultural and traditional practices, these partnerships have yielded numerous implementation-ready projects and treatments on some high priority Federal and private lands; some are already underway or complete. These treatments include fuel breaks, thinning, broadcast burning, and improved fire suppression infrastructure such as water tanks and ingress/egress routes. Although these projects are focused on communities, most of these projects have identified wildlife, water, forest health, and economic stability benefits.

Among the Federal lands within the Middle Klamath River Communities, nearly \$20 million worth of implementation-ready projects have been identified. These projects include approximately 17,000 acres of overly dense forest stands identified to be thinned; 30,000 acres of landscape scale prescribed underburning; and 5,000 acres of shaded fuel breaks to enhance fire suppression activities. On private lands, 120 acres of prescribed burning has been done in the Orleans/Somes Bar area in the fall of 2013. 85 of these acres were burned in two days on nine separate parcels as part of the fall 2013 Northern California Prescribed Fire Training Exchange (Trex), which had 40+ participants from

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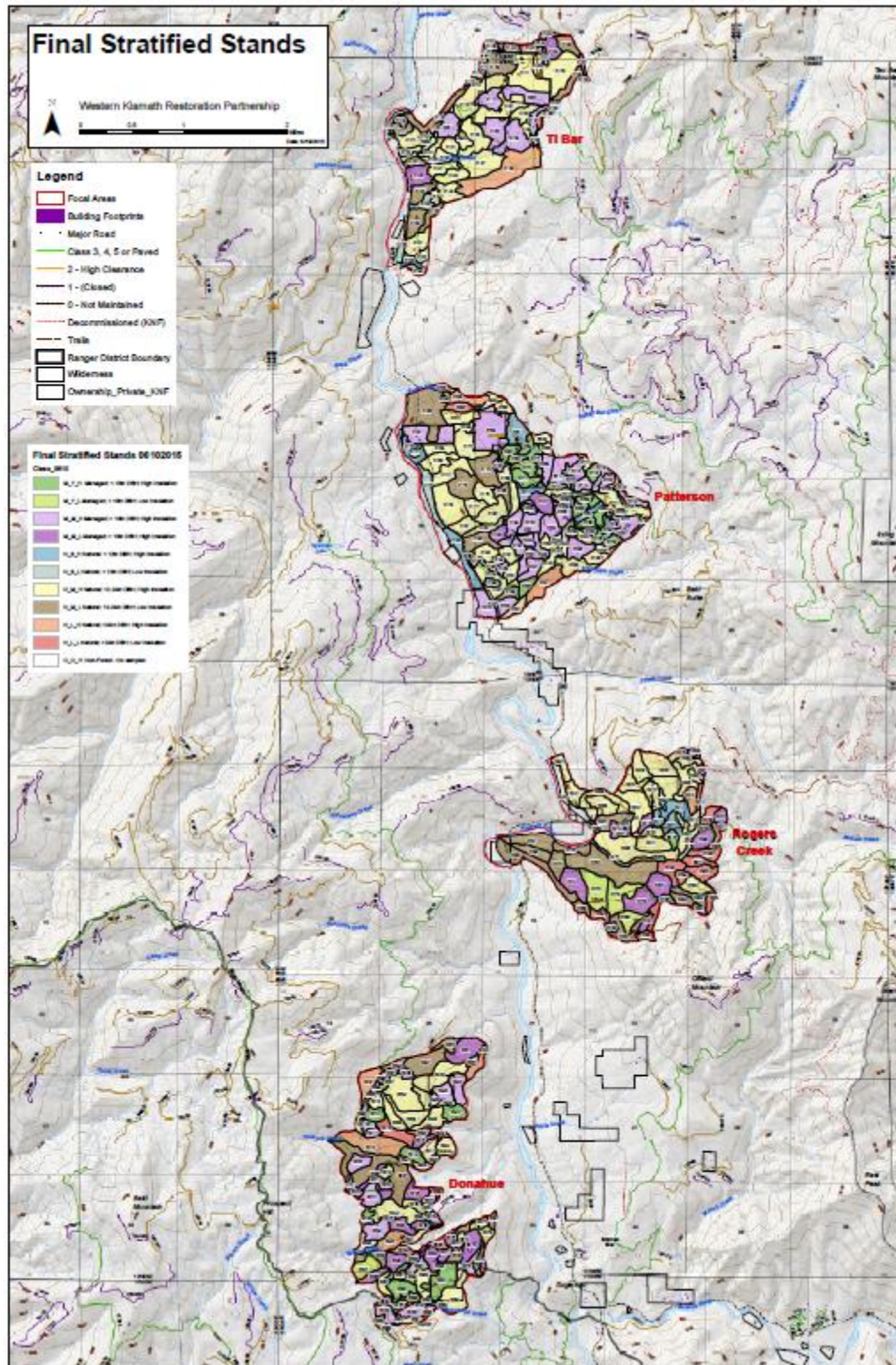
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around the country. Orleans had its own TREX in fall 2014, and plans continuing every fall for the next five years.

The Karuk people once burned these lands frequently and for many reasons. In 1911, Federal policy (Weeks Act) was enacted with a strict goal to “suppress all fires”. The pressure exerted on tribal and settler communities to discontinue fire use was immediate and intense. By 1932, the Forest Service was beginning to eliminate the last of the traditional burners, and the landscape has been building a fire deficit ever since.

The Six Rivers National Forest plans to treat 200-300 acres of ponderosa pine plantations and natural stands in FY2018 as part of the greater WKRP Cohesive Strategy project. These plantations and stands are within the WUIs of the Ti Bar, Patterson, and Donahue neighborhoods (Figure 1). Treatments would consist of overstory thinning and underburning to reduce tree density and re-introduce fire to the system for continued density management for community safety and reduction in risk of bark beetle-caused tree mortality.



Observations

The Ti Bar plantations are primarily a mix of ponderosa pine, Douglas-fir, tan oak, madrone, with some black oak, bigleaf maple, and sugar pine. These appear to be pine/oak habitats with an ingrowth of Douglas-fir, madrone, and tan oak (Figure 2). Very old, large stumps reveal what was most likely open-grown pine. Ponderosa pines are currently 6-24 inches DBH (diameter at breast height) averaging 14-16 inches and Douglas-fir is between 4-20 inches, most in the 4-6 inch range. Western pine beetle is present and causing mortality in patches of 1-5 trees (Figure 3), mostly in the 9-14 inch diameter range.

The Patterson plantations occupy a harsher site with a mix of Douglas-fir, ponderosa pine, and madrone with some live oak and black oak. The desired condition here is a ponderosa pine/oak site, removing the Douglas-fir, smaller madrone, and brush as a pretreatment to reintroduce fire. The current range of diameters of pine are 7-16 inches (Figure4).



**Figure 2. Dense stand of ponderosa pine, Douglas-fir and hardwoods in the Ti Bar unit.
Figure 3 (inset). Western pine beetle galleries under the bark of ponderosa pine.**



Figure 4. Dense stand of Douglas-fir, ponderosa pine, and hardwoods in the Patterson unit.

The Donahue plantations are a mix of ponderosa pine, Douglas-fir, tanoak, live oak and chinquapin. Most of the pine are over 14 inches in diameter, some over 20 inches, most of the Douglas-fir are less than 8 inches in diameter. Currently there are 1697 trees per acre with a basal area of 245 square feet per acre and a stand density index of 584 at one of the plantations visited (Figure 5). There are many single stem hardwoods. This is visually comparable with the stands we visited throughout the day.

Tree density is very high in the WKRP footprint. Much of the discussion was on where this could lead as to bark beetle risk and wildfire risk. Thinning was suggested across all diameters leaving the best of the best of a mix of species both conifer and hardwood. A special emphasis was placed on protecting the black oak, tanoak, chinquapin, and madrone for traditional uses by the Tribe. Some of the units contain old homestead sites determined by species such as rose. It is not clear how these old home sites may affect the NEPA process.

No stands in the Rogers Creek unit contain pine plantations or natural stands with a large component of pine.



Figure 5. Dense stand of ponderosa pine, Douglas-fir, tanoak, live oak and chinquapin in the Donahue unit.

Discussion

The WKRP is a collaborative fire management project in the Western Klamath landscape shared by the Karuk Tribe, the Mid-Klamath Watershed Council, the US Forest Service, area Fire Safe Councils, environmental groups and other community-based stakeholders. However, the area is also at risk of western pine beetle-caused mortality in ponderosa pine due primarily to overstocking and drought. As with most bark beetles, the most economical and efficient means of management is to maintain trees and stands in a healthy condition. Stocking reduction and creation of diverse stand conditions reduce overall susceptibility to western pine beetle. Thinning was discussed and it was suggested that treatment should bring the SDI down to a level where it would remain below 200 for a minimum of 20 years to meet the Region requirement of no less than 20 year re-entry for thinning.

If you have any questions regarding this report and/or need additional information, please contact Cynthia Snyder at 530-226-2437 or Pete Angwin at 530-226-2436.

/s/ Cynthia Snyder

CC: Roberto Beltran, Carolyn Cook, Kristen Lark, Sheri Smith, Phil Cannon, Chris Fischer, and Sherry Hazlehurst